

INSTRUMENT APPROACH PROCEDURE CHARTS

IFR TAKE-OFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

Civil Airports and Selected Military Airports

ALL USERS: Airports that have Departure Procedures (DPs) designed specifically to assist pilots in avoiding obstacles during the climb to the minimum enroute altitude, and/or airports that have civil IFR take-off minimums other than standard, are listed below. Take-off Minimums and Departure Procedures apply to all runways unless otherwise specified. Altitudes, unless otherwise indicated, are minimum altitudes in MSL.

DPs specifically designed for obstacle avoidance are described below in text, or published separately as a graphic procedure. If the (Obstacle) DP is published as a graphic procedure, its name will be listed below, and it can be found in either this volume (civil), or a separate Departure Procedure volume (military), as appropriate. Users will recognize graphic obstacle DPs by the term "(OBSTACLE)" included in the procedure title; e.g., TETON TWO (OBSTACLE). If not assigned another DP or radar vector by ATC, this procedure may be flown to ensure obstacle clearance.

Graphic DPs designed by ATC to standardize traffic flows, ensure aircraft separation and enhance capacity are referred to as "Standard Instrument Departures (SIDs)". SIDs also provide obstacle clearance and are published under the appropriate airport section. ATC clearance must be received prior to flying a SID.

CIVIL USERS NOTE: FAR 91 prescribes standard take-off rules and establishes take-off minimums for certain operators as follows: (1) Aircraft having two engines or less - one statute mile. (2) Aircraft having more than two engines - one-half statute mile. These standard minima apply in the absence of any different minima listed below.

MILITARY USERS NOTE: Civil (nonstandard) take-off minima are published below. For military take-off minima, refer to appropriate service directives.

NAME TAKE-OFF MINIMUMS

AITKIN, MN

AITKIN MUNI-STEVE KURTZ FIELD

TAKE-OFF MINIMUMS: **Rwys 8, 26**, 300-1. **Rwy 16**, 300-1 or std. with a min climb of 400' per NM to 1500.
DEPARTURE PROCEDURE: **Rwy 16, 26**, climb runway heading to 1700 before turning.

ALBERT LEA, MN

ALBERT LEA MUNI

DEPARTURE PROCEDURE: **Rwys 16, 22**, climb runway heading to 1800 before turning on course.

ALEXANDRIA, MN

CHANDLER FIELD

DEPARTURE PROCEDURE: **Rwys 4, 13, 22**, when weather is below 200-1, climb runway heading to 1800 before turning.

APPLETON, MN

APPLETON MUNI

DEPARTURE PROCEDURE: **Rwy 4**, climb to 2000 before turning right. **Rwy 31**, climb to 2000 before turning left. **Rwy 13**, climb to 2400 before turning right. **Rwy 22**, climb to 2400 before turning left.

NAME TAKE-OFF MINIMUMS

BAUDETTE, MN

BAUDETTE INTL

DEPARTURE PROCEDURE: **Rwy 12**, climb runway heading to 1700 before turning northbound.

BELLE FOURCHE, SD

BELLE FOURCHE MUNI

TAKE-OFF MINIMUMS: **Rwys 18, 36**, NA.
DEPARTURE PROCEDURE: **Rwy 32**, climb runway heading to 4200 before turning southbound. **Rwy 14**, climb runway heading to 4200 then climbing left turn to 5000 via heading 120 before turning southwestbound.

BEMIDJI, MN

BEMIDJI REGIONAL

TAKE-OFF MINIMUMS: **Rwy 25**, 300-1 or std. with a min. climb of 345' per NM to 1500.

BENSON, MN

BENSON MUNI

TAKE-OFF MINIMUMS: **Rwy 14**, 400-1 or std. with a min. climb of 270' per NM to 1600.
NOTE: **Rwy 14**, stack 1.32 NM from departure end of runway, 1679' left of centerline, 350' AGL/1382' MSL.

TAKE-OFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

BIGFORK, MN

BIGFORK MUNI

TAKE-OFF MINIMUMS: **Rwy 15**, 400-1 or std. with a min. climb of 250' per NM to 1800.

BISMARCK, ND

BISMARCK MUNI

DEPARTURE PROCEDURE: **Rwys 3, 31**, climb runway heading to 2500 before proceeding on course.

Rwys 13, 21, climb runway heading to 3800 before proceeding south.

BOTTINEAU, ND

BOTTINEAU MUNI

TAKE-OFF MINIMUMS: **Rwy 13**, 800-1 or std. with a min. climb of 280' per NM to 2500. **Rwy 31**, 900-2 or std. with a min. climb of 360' per NM to 2900. **Rwys 3, 21**, NA.

BRAINERD, MN

BRAINERD LAKES REGIONAL

TAKE-OFF MINIMUMS: **Rwys 1, 19**, 300-1.

NOTE: **Rwy 1**, 100' AGL trees, 3366' from departure end, 895' left of centerline. **Rwy 19**, 100' AGL trees, 1674' from departure end, 209' right of centerline.

BRITTON, SD

BRITTON MUNI

TAKE-OFF MINIMUMS: **Rwy 13**, 300-1 or std. with a min. climb of 450' per NM to 1600. **Rwy 19**, 300-1.

DEPARTURE PROCEDURE: **Rwy 19**, climb runway heading to 2000 before turning.

CAVALIER, ND

CAVALIER MUNI

TAKE-OFF MINIMUMS: **Rwy 16**, 300-1 or std. with a min. climb of 430' per NM to 1200.

NOTE: **Rwy 16**, grain elevator 3731' from departure end of runway, 284' left of centerline, 168' AGL/1060' MSL.

CLOQUET, MN

CLOQUET CARLTON COUNTY

TAKE-OFF MINIMUMS: **Rwy 7**, 300-1 or std. with a min. climb of 400' per NM to 1400.

CROOKSTON, MN

CROOKSTON MUNI-KIRKWOOD FIELD

TAKE-OFF MINIMUMS: **Rwy 6**, 300-1 or std. with a min. climb of 280' per NM to 1000.

DETROIT LAKES, MN

DETROIT LAKES-WETHING FIELD

TAKE-OFF MINIMUMS: **Rwys 17, 35**, NA.

NOTE: **Rwy 31**, highway 243' from departure end of runway, 267' right of centerline, 15' AGL/1404' MSL. Railroad 534' from departure end of runway, 298' right of centerline, 23' AGL/1411' MSL.

DEVILS LAKE, ND

DEVILS LAKE MUNI

TAKE-OFF MINIMUMS: **Rwy 31**, 300-1 or std. with a min. climb of 350' per NM to 1600.

DICKINSON, ND

DICKINSON-THEODORE ROOSEVELT REGIONAL

DEPARTURE PROCEDURE: **Rwy 25**, climb via heading 250° to 3100 before turning left.

NOTE: **Rwy 7**, road 887' from departure end of runway, on rwy centerline, 15' AGL/2631' MSL.

DULUTH, MN

SKY HARBOR

TAKE-OFF MINIMUMS: **Rwy 14**, 300-1. **Rwy 32**, 1500-2 or std. with a min. climb of 360' per NM to 2300.

DEPARTURE PROCEDURE: **Rwy 14**, northwest departures (260° CW 030°) climb to 2300 via heading 260° or 030° before proceeding on course.

EAGLE BUTTE, SD

CHEYENNE EAGLE BUTTE

TAKE-OFF MINIMUMS: **Rwys 13, 31**, 300-1.

ELLSWORTH AFB (KRCA)

RAPID CITY, SD

Rwy 31, aircraft departing on course 205° CW 285° require Radar Vectors.

ELY, MN

ELY MUNI

TAKE-OFF MINIMUMS: **Rwy 12**, 300-1 or std. with a min. climb of 200' per NM to 1600.

DEPARTURE PROCEDURE: **Rwy 30**, northbound departures climb runway heading to 2000 before turning.

EVELETH, MN

EVELETH-VIRGINIA MUNI

TAKE-OFF MINIMUMS: **Rwy 32**, 800-2 or std. with a min. climb to 330' per NM to 2300.

DEPARTURE PROCEDURE: **Rwy 27**, northwest departures (270°-050°) climb runway heading to 2200 before turning.

FAIRMONT, MN

FAIRMONT MUNI

TAKE-OFF MINIMUMS: **Rwy 2**, 300-1 or std. with a min. climb of 210' per NM to 1300. **Rwy 20**, 300-1 or std. with a min. climb of 350' per NM to 1300.

FARGO, ND

HECTOR INTL

TAKE-OFF MINIMUMS: **Rwys 13, 31**, NA.

NOTE: **Rwy 9**, multiple light poles 1124' from departure end of runway, 305' left of centerline, 20' AGL/927' MSL.

TAKE-OFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

FOSSTON, MN

FOSSTON MUNI

TAKE-OFF MINIMUMS: **Rwys 14, 32**, IFR takeoff not authorized.

DEPARTURE PROCEDURE: **Rwy 16**, climb runway heading to 2000 before turning.

GETTYSBURG, SD

GETTYSBURG MUNI

TAKE-OFF MINIMUMS: **Rwy 13**, 300-1 or std. with a min. climb of 240' per NM to 2200. **Rwy 31**, 500-2.

GLENWOOD, MN

GLENWOOD MUNI

TAKE-OFF MINIMUMS: **Rwy 5**, 1200-2 or std. with a min. climb of 220' per NM to 2900.

GRAFTON, ND

HUTSON FIELD

TAKE-OFF MINIMUMS: **Rwy 35**, 400-2 or std. with a min. climb of 420' per NM to 1300.

GRANDFORKS, ND

GRAND FORKS INTL

TAKE-OFF MINIMUMS: **Rwy 8**, 300-1 or std. with a min. climb of 300' per NM to 1100.

GRAND RAPIDS, MN

GRAND RAPIDS/ITASCA COUNTY-GORDON NEWSTROM FIELD

TAKE-OFF MINIMUMS: **Rwys 10, 28**, 400-1. **Rwy 4**, 600-1 or std. with a min. climb of 210' per NM to 2100. NA at night. **Rwy 22**, 300-1 or std. with a min. climb of 220' per NM to 1600. NA at night.

GREGORY, SD

GREGORY MUNI, FLYNN FIELD

TAKE-OFF MINIMUMS: **Rwy 31**, 400-2 or std. with a min. climb of 210' per NM to 2600.

HETTINGER, ND

HETTINGER MUNI

TAKE-OFF MINIMUMS: **Rwy 12**, 300-1 or std. with a min. climb rate of 220' per NM to 3000. **Rwys 17, 35** NA.

HIBBING, MN

CHISHOLM-HIBBING

DEPARTURE PROCEDURE: **Rwy 22**, climb via heading 227° to 2200 before turning right. **Rwy 31**, climb via heading 310° to 2200 before turning left.

NOTE: **Rwy 4**, antenna on pole, 361' from departure end of runway, 409' right of centerline, 1377' MSL. **Rwy 13**, obstacle light on pole, 1184' from departure end of runway, 636' left of centerline. Numerous trees beginning 1291' from departure end of runway, 745' left of centerline up to 1419' MSL. Trees 1497' from departure end of runway, 563' right of centerline, 1388' MSL. **Rwy 22**, multiple trees beginning 368' from departure end of runway, 170' right of centerline, up to 1416' MSL. Multiple trees beginning 413' from departure end of runway, 117' left of centerline, up to 1400' MSL. **Rwy 31**, light standard, 865' from departure end of runway, 595' right of centerline, 1381' MSL.

HILLSBORO, ND

HILLSBORO MUNI

DEPARTURE PROCEDURE: **Rwys 16, 34**, climb runway heading to 2000 prior to turning westbound.

HOT SPRINGS, SD

HOT SPRINGS MUNI

TAKE-OFF MINIMUMS: **Rwy 1**, 300-1 or std. with a min. climb of 360' per NM to 5000. **Rwy 19**, 300-2 or std. with a min. climb of 250' per NM to 5000.

DEPARTURE PROCEDURE: **Rwys 1, 19**, climb runway heading to 5000 before proceeding westbound.

HURON, SD

HURON REGIONAL

TAKE-OFF MINIMUMS: **Rwys 17, 35**, 300-1.

DEPARTURE PROCEDURE: **Rwy 12**, climb runway heading to 1700 before turning.

INTERNATIONAL FALLS, MN

FALLS INTL

TAKE-OFF MINIMUMS: **Rwy 4**, 300-1 or std. with a min. climb of 300' per NM to 1300.

JAMESTOWN, ND

JAMESTOWN REGIONAL

TAKE-OFF MINIMUMS: **Rwy 22**, 300-1 or std. with a min. climb of 275' per NM to 1700.

NOTE: **Rwy 22**, tank 2962' from departure end of runway, 1068' left of centerline, 150' AGL/1630' MSL.

LITCHFIELD, MN

LITCHFIELD MUNI

DEPARTURE PROCEDURE: **Rwys 13, 31**, climb to 1800 on runway heading before proceeding on course.

LITTLE FALLS, MN

LITTLE FALLS/MORRISON COUNTY

CHARLES A. LINDBERGH FIELD

TAKE-OFF MINIMUMS: **Rwy 13**, 300-1 or std. with a min. climb of 250' per NM to 1500. **Rwy 36**, 600-1½ or std. with a min. climb of 345' per NM to 1700.

DEPARTURE PROCEDURE: **Rwy 31**, climb to 1700 before turning.

MARSHALL, MN

SOUTHWEST MINNESOTA REGIONAL

MARSHALL/RYAN FIELD

TAKE-OFF MINIMUMS: **Rwy 20**, 600-2 or std. with a min. climb of 220' per NM to 1820.

MINNEAPOLIS, MN

ANOCA COUNTY-BLAINE AIRPORT
(JANES FIELD)

DEPARTURE PROCEDURE: **Rwy 9**, climb via heading 089° to 2700 before turning right. **Rwy 18**, climb via heading 179° to 2700 before turning left. **Rwy 27**, climb via heading 269° to 2700 before proceeding southeast bound. **Rwy 36**, climb via heading 359° to 2700 before proceeding southeast bound.

NOTE: **Rwy 9**, multiple trees 316' from departure end of runway, 230' left of centerline, up to 58' AGL/967' MSL. Multiple trees 1821' from departure end of runway, 618' right of centerline, up to 71' AGL/987' MSL. **Rwy 27**, multiple trees 559' from departure end of runway, 405' left of centerline, up to 50' AGL/946' MSL. Multiple trees 480' from departure end of runway, 395' right of centerline, up to 26' AGL/922' MSL. **Rwy 36**, tree 191' from departure end of runway, 495' right of centerline, 78' AGL/971' MSL. Tree 615' from departure end of runway, 509' right of centerline, 61' AGL/960' MSL. Tree 1458' from departure end of runway/53' left of centerline, 59' AGL/958' MSL.

CRYSTAL

TAKE-OFF MINIMUMS: **Rwys 14L, 14R, 32L, 32R**, 300-1. **Rwys 24L, 24R**, 300-1 or std. with a min. climb of 215' per NM to 1000. **Rwys 6L, 6R**, 300-1 or std. with a min. climb of 285' per NM to 1000.

DEPARTURE PROCEDURE: **Rwys 6L, 6R, 14L, 14R**, eastbound departures (050°-130°) climb runway heading to 2800 before turning.

MINNEAPOLIS, MN (CON'T)

FLYING CLOUD

NOTE: **Rwy 10L**, antenna on hanger 618' from departure end of runway, 354' left of centerline, 26' AGL/932' MSL. Antenna on hanger 270' from departure end of runway, 330' left of centerline, 14' AGL/923' MSL. Tree 682' from departure end of runway, 668' right of centerline, 26' AGL/932' MSL. **Rwy 10R**, multiple poles beginning 287' from departure end of runway, 345' right of centerline, up to 36' AGL/939' MSL. Hanger 150' from departure end of runway, 422' right of centerline, 14' AGL/920' MSL. Tree 858' from departure end of runway, 167' right of centerline, 26' AGL/932' MSL. Antenna on building 536' from departure end of runway, 263' right of centerline, 15' AGL/913' MSL. **Rwy 18**, floodlight on obstruction light 148' from departure end of runway, 374' right of centerline, 38' AGL/938' MSL. Multiple trees beginning 395' from departure end of runway, 166' left of centerline, up to 41' AGL/941' MSL. Obstruction light on hanger 282' from departure end of runway, 317' right of centerline, 37' AGL/937' MSL. Road and vehicles 198' from departure end of runway, 196' left of centerline, 15' AGL/918' MSL. Obstruction light on fence 176' from departure end of runway, 127' left of centerline, 10' AGL/910' MSL, tree 338' from departure end of runway, 350' left of centerline, 61' AGL/961' MSL. **Rwy 28R**, hanger 259' from departure end of runway, 355' right of centerline, 18' AGL/931' MSL. **Rwy 36**, building 967' from departure end of runway, 342' left of centerline, 43' AGL/943' MSL. Vent on building 943' from departure end of runway, 295' left of centerline, 43' AGL/943' MSL. Multiple trees beginning 504' from departure end of runway, 324' right of centerline, up to 76' AGL/966' MSL. Multiple trees beginning 767' from departure end of runway, 302' left of centerline, up to 57' AGL/957' MSL. Windmill 859' from departure end of runway, 403' left of centerline, 59' AGL/959' MSL. Pole 713' from departure end of runway, 351' left of centerline, 42' AGL/932' MSL. Wind vane 923' from departure end of runway, 404' left of centerline, 60' AGL/960' MSL.

19 JAN 2006 to 16 FEB 2006

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MINNEAPOLIS, MN (CON'T)

MINNEAPOLIS-ST. PAUL INTL
(WOLD CHAMBERLAIN)

TAKEOFF MINIMUMS: **Rwy 35**, std. with a min. climb of 219' per NM to 2100.

DEPARTURE PROCEDURE: **Rwy 4**, climb via heading 043° to 2100 before turning left. **Rwy 30L**, climb via heading 299° to 2100 before turning right. **Rwy 30R**, climb via heading 299° to 2100 before turning right. **Rwy 35**, climb via heading 348° to 2100 before turning left.

NOTE: **Rwy 4**, multiple trees beginning 800' from departure end of runway, 264' left of centerline, up to 75' AGL/921' MSL. Rod on building 2528' from departure end of runway, 1175' left of centerline, 78' AGL/922' MSL. Fence 803' from departure end of runway, 585' left of centerline, 15' AGL/860' MSL. Antenna on OL building 456' from departure end of runway, 319' left of centerline, 13' AGL/850' MSL. Light poles 1932' from departure end of runway, 718' left of centerline, 45' AGL/885' MSL. Stack 4535' from departure end of runway, 481' left of centerline, 139' AGL/949' MSL. **Rwy 17**, building, 199' from departure end of runway, 496' left of centerline, 67' AGL/898' MSL. Multiple poles beginning 188' from departure end of runway, 240' right of centerline, up to 160' AGL/866' MSL. WDI on building 2619' from departure end of runway, 881' left of centerline, 97' AGL/918' MSL. Building 2619' from departure end of runway, 859' left of centerline, 84' AGL/905' MSL. **Rwy 22**, tree 2906' from departure end of runway, 833' right of centerline, 94' AGL/934' MSL. Hopper 1716' from departure end of runway, 456' left of centerline, 48' AGL/888' MSL. **Rwy 30L**, multiple trees beginning 1301' from departure end of runway, 711' left of centerline, up to 80' AGL/919' MSL. Tree 1230' from departure end of runway, 633' right of centerline, 30' AGL/877' MSL. Ground 28' from departure end of runway, 490' right of centerline, 0' AGL/844' MSL. **Rwy 35**, multiple trees beginning 175' from departure end of runway, 212' right of centerline, up to 73' AGL/913' MSL. Tree 1989' from departure end of runway, 734' left of centerline, 65' AGL/892' MSL. Tree 2449' from departure end of runway, 351' left of centerline, 75' AGL/902' MSL. Building 5.45 NM from departure end of runway, 1849' left of centerline, 811' AGL/1743' MSL. Obstruction light antenna on building 5.43 NM from departure end of runway 1788' left of centerline, 807' AGL/1739' MSL.

MINOT, ND

MINOT INTL

DEPARTURE PROCEDURE: **Rwys 8, 13**, climb runway heading to 3000 before turning right. **Rwys 26, 31**, climb runway heading to 3000 before turning left.

MITCHELL, SD

MITCHELL MUNI

DEPARTURE PROCEDURE: **Rwys 12, 17**, climb to 1800 before turning.

MOBRIDGE, SD

MOBRIDGE MUNI

TAKE-OFF MINIMUMS: **Rwy 35**, 300-1.
DEPARTURE PROCEDURE: **Rwys 12, 17, 30, 35**, climb runway heading to 2500 before turning on course.

MONTEVIDEO, MN

MONTEVIDEO-CHIPPEWA COUNTY,

TAKE-OFF MINIMUMS: **Rwy 21**, 400-1%.

DEPARTURE PROCEDURE: **Rwy 14**, climb runway heading to 1500 before turning.

MOOSE LAKE, MN

MOOSE LAKE CARLTON COUNTY

TAKE-OFF MINIMUMS: **Rwys 4, 22**, 300-1.

MOTLEY, MN

MOREY'S

TAKE-OFF MINIMUMS: **Rwy 27**, 400-1. **Rwy 9**, 300-1.

OAKES, ND

OAKES MUNI

TAKE-OFF MINIMUMS: **Rwy 30**, 300-1 or std. with a min. climb of 260' per NM to 1700.

OLIVIA, MN

OLIVIA REGIONAL

TAKE-OFF MINIMUMS: **Rwy 11**, 300-1.

ORR, MN

ORR REGIONAL

TAKE-OFF MINIMUMS: **Rwy 13**, 500-2 or std. with a min. climb of 260' per NM to 1900.

ORTONVILLE, MN

ORTONVILLE MUNI-MARTINSON FIELD

TAKE-OFF MINIMUMS: **Rwy 16**, 300-1 or std. with a min. climb of 210' per NM to 1300.

OWATONNA, MN

OWATONNA DEGNER REGIONAL

DEPARTURE PROCEDURE: **Rwy 12**, climb runway heading to 1500 before turning on course.

PEMBINA, ND

PEMBINA MUNI

DEPARTURE PROCEDURE: **Rwy 33**, climb runway heading 3200 before turning left.

PERHAM, MN

PERHAM MUNI

TAKE-OFF MINIMUMS: **Rwy 12**, 500-2 or std. with a min. climb of 210' per NM to 2000. **Rwy 30**, 400-1 or std. with a min. climb of 270' per NM to 1800.

DEPARTURE PROCEDURE: **Rwy 12**, climb runway heading to 2000 before proceeding on course. **Rwy 30**, climb runway heading to 1800 before proceeding on course.

PIERRE, SD

PIERRE REGIONAL

TAKE-OFF MINIMUMS: **Rwy 25**, 300-1.

TAKE-OFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

PINERIDGE, SD

PINE RIDGE

TAKE-OFF MINIMUMS: **Rwy 12**, 300-1 or std. with a min. climb of 350' per NM to 3500. **Rwy 24**, 300-1 or std. with a min. climb of 220' per NM to 3500. **Rwy 30**, 300-1 fillmore county
TAKE-OFF MINIMUMS: **Rwys 11, 29**, 300-1.

PRESTON, MN

FILLMORE COUNTY

TAKE-OFF MINIMUMS: **Rwys 11, 29**, 300-1.

PRINCETON, MN

PRINCETON MUNI

NOTE: **Rwy 15**, trees 982' from departure end of runway, 335' right of centerline, 50' AGL/1029' MSL. Trees 1449' from departure end of runway, 387' left of centerline, 50' AGL/1029' MSL. **Rwy 33**, barn 1159' from departure end of runway, 780' right of centerline, 50' AGL/1139' MSL, multiple trees, terrain, and road beginning 36' from departure end of runway, 84' right of centerline, up to 50' AGL/1045' MSL.

RAPID CITY, SD

RAPID CITY REGIONAL

DEPARTURE PROCEDURE: **Rwys 14, 23**, left turn within 5 NM, climb east of RAP VORTAC to MEA before proceeding on course. **Rwys 5, 32**, west departures (180° CW 360°) climb east of RAP VORTAC to MEA before proceeding on course.

RAY S. MILLER AAF (RYM)

CAMP RIPLEY, MN

.....Rwy 31, 300-1*
* Or standard with minimum climb of 250'/NM to 1400.

RED WING, MN

RED WING REGIONAL

DEPARTURE PROCEDURE: **Rwy 9**, 700-4 or std. with a min. climb of 270' per NM to 1700.

RUSHFORD, MN

RUSHFORD MUNI

TAKE-OFF MINIMUMS: **Rwy 34**, 300-1 or std. with a min. climb of 300' per NM to 1500.
DEPARTURE PROCEDURE: **Rwy 16**, climb runway heading to 1700 before turning eastbound.

ST. JAMES, MN

ST. JAMES MUNI

DEPARTURE PROCEDURE: **Rwy 15**, climb to 1900 before turning eastbound.

ST. PAUL MN

LAKE ELMO

TAKE-OFF MINIMUMS: **Rwy 22**, 300-1 or std. with a min. climb of 225' per NM to 1100.

ST. PAUL DOWNTOWN HOLMAN FIELD

TAKE-OFF MINIMUMS: **Rwy 9**, 400-2 or std. with a min. climb of 304' per NM to 1200. **Rwy 13**, std. with a min. climb of 233' per NM to 1500. **Rwy 27**, 600-2 or std. with a min. climb of 437' per NM to 1500. **Rwy 31**, NA-obstacles. **Rwy 32**, std. with a min. climb of 340' per NM to 2800.

DEPARTURE PROCEDURE: **Rwy 9**, northbound, southbound, and westbound departures, climb via heading 088° to 2800 before turning. **Rwy 13**, northbound and eastbound departures, climb via heading 125° to 2800 before turning. **Rwy 14**, northbound and eastbound departures, climb via heading 143° to 2800 before turning. **Rwy 27**, northbound and eastbound departures, climb via heading 268° to 2800 before turning. **Rwy 32**, northbound and eastbound departures, climb via heading 323° to 2800 before turning.

NOTES: **Rwy 9**, multiple trees beginning 1264' from departure end of runway, 166' right of centerline, up to 75' AGL/1055' MSL. OL tank 1579' from departure end of runway, 771' right of centerline, 50' AGL/811' MSL. Mobile crane 1162' from departure end of runway, 123' left of centerline, 50' AGL/758' MSL. **Rwy 13**, tower 3.08 NM from departure end of runway, 4458' left of centerline, 254' AGL/1234' MSL. OL stack 2716' from departure end of runway, 842' right of centerline, 50' AGL/820' MSL. Multiple trees beginning 1004' from departure end of runway, 607' left of centerline, 50' AGL/767' MSL. Tower 1725' from departure end of runway, 930' left of centerline, 47' AGL/753' MSL. Vent on building 3029' from departure end of runway, 629' right of centerline, 10' AGL/783' MSL. Multiple bushes beginning 194' from departure end of runway, 137' right of centerline, 7' AGL/712' MSL. Stack 1879' from departure end of runway, 25' left of centerline, 51' AGL/751' MSL. **Rwy 14**, multiple trees beginning 34' from departure end of runway, 529' right of centerline, 50' AGL/811' MSL. Multiple poles beginning 1840' from departure end of runway, 947' right of centerline, 50' AGL/778' MSL. **Rwy 27**, Antenna on OL stack 10663' from departure end of runway, 635' left of centerline, 569' AGL/1279' MSL. Multiple trees beginning 783' from departure end of runway 2560' left of centerline, up to 994' MSL. OL antenna 995' from departure end of runway, 305' right of centerline, 20' AGL/767' MSL. Flag pole 2332' from departure end of runway, 200' left of centerline, 50' AGL/778' MSL. Lightpole 1327' from departure end of runway, 222' left of centerline, 50' AGL/747' MSL. Building 2049' from departure end of runway, 837' right of centerline, 57' AGL/761' MSL.

ST. PAUL DOWNTOWN HOLMAN FIELD (CONT)

Rwy 32, multiple towers beginning 45019' from departure end of runway, 11737' right of centerline, 1466' AGL/2376' MSL. OL antenna 13411' from departure end of runway, 3335' left of centerline, 50' AGL/1151' MSL. Tower 13428' from departure end of runway, 3372' left of centerline, 312' AGL/1151' MSL. Pole 6451' from departure end of runway, 1837' right of centerline, 157' AGL/973' MSL. Building 5900' from departure end of runway, 1733' right of centerline, 72' AGL/910' MSL. Tower 7329' from departure end of runway, 1187' left of centerline, 143' AGL/918' MSL. Sign 5836' from departure end of runway, 1924' left of centerline, 10' AGL/874' MSL. Multiple trees beginning 1678' from departure end of runway, 2342' left of centerline, 50' AGL/961' MSL. Railroad 362' from departure end of runway, 485' left of centerline, 50' AGL/725' MSL. Building 7334' from departure end of runway, 1174' left of centerline, 50' AGL/897' MSL. Road 205' from departure end of runway, 484' left of centerline, 50' AGL/717' MSL. Rod on stack 7139' from departure end of runway, 750' left of centerline, 50' AGL/889' MSL.

SILVER BAY, MN

SILVER BAY MUNI

TAKE-OFF MINIMUMS: **Rwys 7, 25**, 300-1.

SIOUX FALLS, SD

JOE FOSS FIELD

DEPARTURE PROCEDURE: **Rwys 3, 21, 27, 33**, climb runway heading to 2200 before turning eastbound.

Rwy 15, climb runway heading to 2800 before turning northbound. **Rwy 9**, climb to 3500 via heading 060° before turning southbound.

SPEARFISH, SD

BLACK HILLS-CLYDE ICE FIELD

TAKE-OFF MINIMUMS: **Rwys 3, 8, 21, 35**, 700-2 (NA at night.). **Rwy 12**, 900-2 or std. with a min. climb of 300' per NM to 5400. **Rwy 17**, NA. **Rwys 26, 30**, 700-2 or std. with a min. climb of 370' per NM to 4700.

DEPARTURE PROCEDURE: **Rwys 3, 8**, turn left. Climb to 6500, intercept the 046° bearing outbound from SPF NDB. Thence... **Rwy 12**, climb runway heading to 4300, then climbing left turn to 6500 via heading 360° to intercept the 046° bearing outbound from SPF NDB. Thence... **Rwys 21, 35**, turn right. Climb to 6500 intercept the 046° bearing outbound from SPF NDB. Thence... **Rwy 26**, climbing right turn to 6500 via heading 330°, intercept the 297° bearing outbound from SPF NDB. Thence... **Rwy 30**, after take-off, intercept 297° bearing outbound from SPF NDB. Climb to 6500. Thence... THENCE...Continue climb to enroute MEA's before proceeding on course.

STAPLES, MN

STAPLES MUNI

TAKE-OFF MINIMUMS: **Rwy 14**, 400-2.

STURGIS, SD

STURGIS MUNI

DEPARTURE PROCEDURE: **Rwy 11**, climb runway heading to 6000, then direct RAP VORTAC.

Rwy 29, climb runway heading to 5000, then climbing right turn to 6000 direct RAP VORTAC.

VERMILLION, SD

HAROLD DAVIDSON FIELD

DEPARTURE PROCEDURE: **Rwy 30**, climb runway heading to 3000 before turning right.

WAHPETON, ND

HARRY STERN

TAKE-OFF MINIMUMS: **Rwy 3**, 300-1.

WARREN, MN

WARREN MUNI

DEPARTURE PROCEDURE: **Rwy 30**, climb runway heading to 1400 before turning on course.

WATFORD CITY, ND

WATFORD CITY MUNI

TAKE-OFF MINIMUMS: **Rwy 30**, 400-1 or std. with a min. climb of 340' per NM to 2600. **Rwy 12**, 300-1 or std. with a min climb of 300' per NM to 2600.

WHEATON, MN

WHEATON MUNI

TAKE-OFF MINIMUMS: **Rwy 16**, 300-1.

Rwys 4, 22, NA.

WILLISTON, ND

SLOULIN FIELD INTL

TAKE-OFF MINIMUMS: **Rwy 29**, 300-1 or std. with a min. climb of 270' per NM to 2300.

DEPARTURE PROCEDURE: **Rwy 20**, climb runway heading to 2300 before turning westbound.

WILLMAR, MN

WILLMAR MUNI-JOHN L. RICE FIELD

TAKE-OFF MINIMUMS: **Rwy 10, 28**, 300-1. **Rwy 36**, 1000-2 or std. with a min. climb of 265' per NM to 2300.

DEPARTURE PROCEDURE: **Rwy 10, 28**, climb runway heading to 2000 before turning north. **Rwy 36**, climb runway heading to 2100 before turning.

WINNER, SD

BOB WILEY FIELD

DEPARTURE PROCEDURE: **Rwys 13, 21**, climb to 2500 before turning.

WINONA, MN

WINONA MUNI-MAX CONRAD FIELD

TAKE-OFF MINIMUMS: **Rwy 12**, 300-1 or std. with a min. climb of 320' per NM to 800. **Rwy 17**, 600-1 or std. with a min. climb of 500' per NM to 1300. **Rwy 30**, 500-1 or std. with a min. climb of 500' per NM to 1200. **Rwy 35**, 700-1 or std. with a min. climb of 390' per NM to 1500.

DEPARTURE PROCEDURE: **Rwy 12**, climb to 1900 via ONAR-110 before turning. **Rwys 17, 30, 35**, climb runway heading to 1900 before turning.

WORTHINGTON, MN

WORTHINGTON MUNI

TAKE-OFF MINIMUMS: **Rwy 17**, 300-1.

DEPARTURE PROCEDURE: **Rwys 11, 17, 29, 35**,
when weather is below 800-1 climb runway heading to
2400 before turning.

YANKTON, SD

CHAN GURNEY MUNI

TAKE-OFF MINIMUMS: **Rwy 31**, 300-1.

DEPARTURE PROCEDURE: **Rwys 1, 13, 19, 31**, climb
runway heading to 2400 before turning.

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